

Notice of Allowability

Application No.

10/694,089

Examiner

Nelson D. Hernandez

Applicant(s)

OMIYA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment received on 6/21/2007.
2. ☒ The allowed claim(s) is/are 1-18 and 20 (Renumbered as 1-19).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached:
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____


LIN YE
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges the amended claims filed on June 21, 2007.

Claims 1, 13 and 18 have been amended.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul F. Neils (Attorney on Record, Reg. No. 33,102) on August 17, 2007.

The application has been amended as follows:

Claim 1. (Currently amended) A digital camera that creates an image signal through catching a subject light, the digital camera comprising:

an image taking lens, which is variable in a focal length, comprising a plurality of lenses including a focus lens arranged on an optical axis, wherein a focusing is performed by a movement of the focus lens;

a lens barrel that incorporates therein the image taking lens, the lens barrel being free in extension and collapse and performing a focal length control; and

a solid state imaging device that receives the subject light formed by the image taking lens to create the image signal,

wherein the lens barrel has a lens advancing and saving mechanism in which at the time of the collapse of the lens barrel, the focus lens is saved from an optical axis of the image taking lens and at the time of the extension of the lens barrel, the focus lens is advanced onto the optical axis of the image taking lens, ~~and~~

the lens advancing and saving mechanism saves and advances the focus lens from and onto the optical axis by rotating the focus lens about a fixed shaft, and
the fixed shaft is fixed to an inner rear wall of the lens barrel.

Claim 13. (Currently amended) A digital camera that creates an image signal through catching a subject light, the digital camera comprising:

an image taking lens, which is variable in a focal length, comprising a plurality of lenses including a focus lens arranged on an optical axis, wherein a focusing is performed by a movement of the focus lens;

a lens barrel that incorporates therein the image taking lens, the lens barrel being free in extension and collapse and performing a focal length control; and

a solid state imaging device that receives the subject light formed by the image taking lens to create the image signal,

wherein the lens barrel has a focus lens guide frame that moves in the optical axis direction in accordance with the extension and the collapse so as to determine a position related to the optical axis direction of the focus lens, and a focus lens holding

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frame that holds the focus lens and is pivotally supported by the focus lens guide frame, the focus lens holding frame causing the focus lens to revolve on the optical axis of the image taking lens at the time of the extension, and the focus lens holding frame causing the focus lens to revolve on a saving position out of the optical axis of the image taking lens at the time of the collapse, and

the focus lens holding frame rotates the focus lens about a fixed shaft, and

the focus lens holding frame rotates about a fixed shaft, and

the fixed shaft is fixed to an inner rear wall of the lens barrel.

Claim 18. (Currently amended) A digital camera that creates an image signal through catching a subject light, the digital camera comprising:

an image taking lens, which is variable in a focal length;

a light quantity control member that controls a light quantity of the subject light passing through the image taking lens, and

a lens barrel that incorporates therein the image taking lens, having an internal space having in front an aperture through which the image taking lens appears, the lens barrel being free in extension and collapse;

wherein the lens barrel has a light quantity control member advancing and saving mechanism in which at the time of the collapse of the lens barrel, the light quantity control member is saved to a predetermined light quantity control member saving position out of the optical axis of the image taking lens, and at the time of the extension

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of the lens barrel, the light quantity control member is advanced onto the optical axis of the image taking lens, and

the light quantity control member advancing and saving mechanism saves and advances the light quantity control member from and onto the optical axis by rotating the light quantity control member about a fixed shaft, and

the fixed lens is fixed to an inner rear wall of the lens barrel.

Claim 19. (Canceled).

Claim 20. (Newly added). A digital camera that creates an image signal through catching a subject light, the digital camera comprising:

an image taking lens, which is variable in a focal length, comprising a plurality of lenses including a focus lens arranged on an optical axis, wherein a focusing is performed by a movement of the focus lens;

a lens barrel that incorporates therein the image taking lens, the lens barrel being free in extension and collapse and performing a focal length control; and

a solid state imaging device that receives the subject light formed by the image taking lens to create the image signal,

wherein the lens barrel has a lens advancing and saving mechanism in which at the time of the collapse of the lens barrel, the focus lens is saved from an optical axis of the image taking lens and at the time of the extension of the lens barrel, the focus lens is advanced onto the optical axis of the image taking lens, ~~and~~

the lens advancing and saving mechanism saves and advances the focus lens from and onto the optical axis by rotating the focus lens about a fixed shaft, and the shaft does not move along the optical axis of the image taking lens.

Allowable Subject Matter

3. **Claims 1-18 and 20** (Renumbered as 1-19) are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that the lens advancing and saving mechanism saves and advances the focus lens from and onto the optical axis by rotating the focus lens about a fixed shaft, and the fixed shaft is fixed to an inner rear wall of the lens barrel.

Regarding claim 13, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that the focus lens holding frame rotates the focus lens about a fixed shaft, the focus lens holding frame rotates about a fixed shaft, and the fixed shaft is fixed to an inner rear wall of the lens barrel.

Regarding claim 18, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that the light quantity control member advancing and saving mechanism saves and advances the light quantity control member from and onto the

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optical axis by rotating the light quantity control member about a fixed shaft, and the fixed lens is fixed to an inner rear wall of the lens barrel.

Regarding claim 20 (Renumbered as 19), the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that the lens advancing and saving mechanism saves and advances the focus lens from and onto the optical axis by rotating the focus lens about a fixed shaft, and the shaft does not move along the optical axis of the image taking lens.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 9:30 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson D. Hernandez
Examiner
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NDHH
August 17, 2007



LIN YE
SUPERVISORY PATENT EXAMINER